MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023

BAC 2624 – MANAGEMENT ACCOUNTING 2

(All sections / Groups)

5 JULY 2023
9.00 a.m. – 12.00 p.m.
(3 Hours)

INSTRUCTIONS TO STUDENT:

1. This paper consists of **NINE (9)** pages excluding a cover page with **4** Questions only.
2. Answer **ALL** questions.
3. All questions carry equal marks and the distribution of marks for each question is given.
4. Please write all your answers in the Answer Booklet provided.

QUESTION 1

PART A

The following information is available for Comel Sdn. Bhd. for January 2023. Comel Sdn. Bhd. is a manufacturing company which uses the FIFO method as the process costing system.

Production Data:	Units
Beginning WIP (40% complete)	7,500
Units started into production	80,000
Units completed and transferred out	72,500
Ending WIP (70% complete)	13,000
Normal spoilage	1,100
Abnormal spoilage	900
Cost Data:	RM
Beginning Work in Process Costs:	
Materials	10,400
Conversion:	13,800
Cost added during the month:	
Materials	120,000
Conversion	350,000

Required:

1. Summarize the flow of physical units of output.

(2 marks)

2. Compute the equivalent units of productions.

(2 marks)

3. Summarize the total cost to account for.

(2 marks)

4. Compute the cost per equivalent units and assign the cost to units completed, spoiled units and to units in ending work-in-progress.

(6 marks)

Continued...

PART B

1. Explain what joint-cost is and give three purposes for allocating joint-cost to products and services.

(3 marks)

2. Harmoni Bhd. processes raw material in Department 1 from which come two main products, A and B, and a by-product, C. A is further processed in Department 2, B in Department 3, and C in Department 4. The sales value of the by-product C is used to reduce the joint-cost of the main products, and total sales value at split-off is used to allocate the joint costs.

	Dept 1	Dept 2	Dept 3	Dept 4
Cost incurred:	RM 90,000	RM 10,000	RM 8,000	RM 10,000

Product	A	B	C
Production:	10,000 kg	20,000 kg	10,000 kg
Sellimg price	RM 10.00/kg	RM 5.00/kg	RM 2.00 kg

Required:

a) Calculate the joint cost of production.

(1 mark)

b) Allocate the joint cost and compute the unit production cost of product A and B.

(3 marks)

c) The ending inventory consists of 5,000kg of B and 1,000kg of C. Compute the value of the ending inventory for B and C.

(2 marks)

d) Recompute part (b) and (c) using the net realizable value method.

(4 marks)

[TOTAL 25 MARKS]

Continued...

QUESTION 2

PART A

Precision Equipment is in the process of upgrading and modernizing its plant. This involves the upgrading of one of its measuring equipment items as it gives wrong readings and is increasingly unreliable. The information on the upgrading is as follows:

Cost information:	RM
Cost of upgrading the measuring equipment	924,000
Working capital requirement (beginning of the project) (Note: Working capital is recovered at the end of useful life)	11,000
The annual cash operating inflows (savings) before tax	165,000
Other Information:	
Depreciation method	Straight line
Expected useful life of the equipment (no salvage value)	12 years
Required rate of returns	10%
Income tax rate	25%

Required:

1. Calculate the following for the new equipment:

   a. Annual net operating income after tax.

   (2 marks)

   b. Annual net operating cash inflows after tax

   (2 marks)

   c. Accrual accounting rate of returns (based on initial investment)

   (2 marks)

   d. Payback period

   (2 marks)

   e. Net present value (NPV)

   (5 marks)

2. Explain what a post-investment audit is. Why are post-investment audits performed?

   (2 marks)

[TOTAL 25 MARKS]

Continued...

PART B

Wonderful Bhd. manufactures a certain product by mixing three kinds of materials in large batches. The blend master has the responsibility for maintaining the quality of the product, and this often requires altering the proportions of the various ingredients. Standard costs are used to provide material control information. The standard material inputs per batch are:

	Quantity (Kg)	Price per kg (RM)	Standard cost of material (RM)
Material A	420	0.06	25.20
Material B	70	0.12	8.40
Material C	10	0.25	2.50
Total batch	500		36.10

The finished product is packed in 50-kg boxes; the standard material cost of each box is, therefore, RM 3.61 per kg.

During January, the following materials were put in process:

Material A	181,000 kg
Material B	33,000 kg
Material C	6,000 kg
Total	220,000 kg

Finished output during January amounted to 4,100 boxes.

Required:

1. Compute the total material efficiency variance for the month of January and break it down into mixed and yield variance components.

(10 marks)

[TOTAL 25 MARKS]

QUESTION 3

PART A

1. Explain two (2) features and two (2) benefits of Just-in-Time (JIT) production systems.

(4 marks)

2. Panasonic Industries Bhd recently decided to adopt a Just-in-Time inventory policy to control the rising cost of production and to free up cash for investment. Upon implementation of JIT, the company anticipated that inventory would decrease from RM 4,320,000 to RM 720,000 and the freed-up funds can be invested at 6% per annum returns. In addition, the following data applies:

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i. Reducing inventory should produce savings in insurance and property taxes of RM 30,000.

ii. Due to the reduction in inventory, the company can lease 75% of its exiting warehouse to another company for RM 60.00 per square meters. The warehouse is 30,000 square meters.

iii. There is now the need to handle an increased number of small deliveries from suppliers due to the JIT process. The company will need to remodel its production and receiving station at a cost of RM 690,000. This cost will be depreciated over a ten-year period.

iv. A change of supplier is expected to result in more expensive raw materials. However, these materials are expected to reduce the warranty and repair cost after the company's products are sold, resulting in a net saving of RM 28,750.

v. Two employees currently earning RM95,000 each in the material management division will be transferred to other positions within the company due to JIT. Another employee who earns RM 85,000 per annum is made redundant and is retrenched.

vi. Reduced inventory levels and accompanying stock-outs will cost the company about RM 70,000 per year.

Required:

1. Calculate the annual financial impact on yearly profits of the company for the decision to adopt the JIT System.

(9 marks)

PART B

Jensen Industries Bhd manufactures water heaters. It uses just-in-time (JIT) manufacturing system and uses backflush costing. The backflush costing adopted by the company has three (3) trigger points:

1. Purchase of direct materials and incurring conversion cost.
2. Completion of finished goods
3. Sale of finished goods

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The data tabulated below is for the month of January 2023:

	RM
Purchase of raw materials	2,673,300
Conversion cost incurred:	
Labor	231,000
Overheads	539,000
Standard direct material cost per unit	95.00
Standard conversion cost:	
Labor	8.40
Overhead	19.60

The direct materials purchased, and conversion cost incurred are recorded at actual cost. There were no opening inventories for raw materials, work-in-progress or finished goods on 1 January 2023.

Jensen Industries Bhd manufactured and completed 28,000 finished units in January 2023 and sold 27,680 units.

Required:

a. Prepare summary journal entries for the month of January 2023, including the disposition of under or over- allocated conversion cost.

(12 marks)

[TOTAL 25 MARKS]

QUESTION 4

PART A

LTK company's Electronic Division produces compact speakers used by manufacturers of various audio products. Sales and cost data for the Electronic Division is as follows:

	RM
Selling price per unit of the speaker in the market	60.00
Variable cost per unit	42.00
Fixed cost per unit (based on capacity)	8.00
Capacity in units	25,000

LTK company has a Computer Division that manufactures laptops that could use the speaker in its latest model. The Computer Division requires 5,000 units per year. It has received a quotation from a company in China for RM 57.00 per unit. Each Division manager has full authority over all decisions involving the sale of that division's output either to outside customers or other divisions of the company.

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Required:

1. Assume that the Electronic Division is only selling 20,000 units of the speaker to outside customers, what is the minimum transfer price for the speaker to be sold to the Computer Division? Explain your answer.

(2 marks)

2. What is the maximum transfer price acceptable to the manager of the Computer Division? Explain your answer.

(2 marks)

3. From the standpoint of the company, should the transfer take place? Show you computations.

(2 marks)

4. Assume that the Electronic Division is selling all 25,000 units it produces to outside customers. What is the minimum transfer price for the speaker to be sold to the Computer Division? Explain your answer.

(3 marks)

5. Assume that Management of the company insist that the Electronic Division transfers the 5,000 units of speakers to the Computer Division as per the minimum transfer price calculated in 4 above. From the standpoint of the company, should the transfer take place? Explain your answer.

(3 marks)

PART B

Tera Equipment manufactures and sells electrical appliances for home use. It has developed a new portable induction cooker. The project team is evaluating the new product before it is released into production. The company uses target costing to evaluate all its products. The market survey indicated that there is potential for this product and the company believes that it would generate a demand of 65,000 units at an average selling price of RM 340.00 per unit.

The production team has performed a value analysis of this product and has compiled the following cost over the life cycle of the product:

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Cost elements:	Total Life Cycle Cost (RM)
Research and development cost	2,125,000
Design cost	1,575,000
Production cost	7,350,000
Marketing cost	1,155,000
Logistic and distribution cost	1,942,500
Customer service	997,500
Total life cycle cost	15,145,000

The company has set a target profit percentage of 35% of sales. The production team has indicated that a new manufacturing process, if implemented, can reduce the production cost by 45%. However, the new production process would cost RM 2,137,500.

Required:

1. Based on the existing total life cycle cost, should the product be released to production? Show computations and explain your answer.

(8 marks)

2. Assuming that the new production process is purchased and implemented, should the new product be released to production? Show computations and explain your answer.

(5 marks)

[TOTAL 25 MARKS]

(GRAND TOTAL 100 MARKS)

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Present Value of $1.00

$P = \frac{S}{(1 + r)^n}$. In this table S = $1.00.

Periods	2%	4%	6%	8%	10%	12%	14%	16%
1	0.980	0.962	0.943	0.926	0.909	0.893	0.877	0.862
2	0.961	0.925	0.890	0.857	0.826	0.797	0.769	0.743
3	0.942	0.889	0.840	0.794	0.751	0.712	0.675	0.641
4	0.924	0.855	0.792	0.735	0.683	0.636	0.592	0.552
5	0.906	0.822	0.747	0.681	0.621	0.567	0.519	0.476
6	0.888	0.790	0.705	0.630	0.564	0.507	0.456	0.410
7	0.871	0.760	0.665	0.583	0.513	0.452	0.400	0.354
8	0.853	0.731	0.627	0.540	0.467	0.404	0.351	0.305
9	0.837	0.703	0.592	0.500	0.424	0.361	0.308	0.263
10	0.820	0.676	0.558	0.463	0.386	0.322	0.270	0.227
11	0.804	0.650	0.527	0.429	0.350	0.287	0.237	0.195
12	0.788	0.625	0.497	0.397	0.319	0.257	0.208	0.168
13	0.773	0.601	0.469	0.368	0.290	0.229	0.182	0.145
14	0.758	0.577	0.442	0.340	0.263	0.205	0.160	0.125
15	0.743	0.555	0.417	0.315	0.239	0.183	0.140	0.108

Present Value of Annuity $1.00 in Arrears*

$P_n = \frac{1}{r}\left[1 - \frac{1}{(1 + r)^n}\right]$.

Periods	2%	4%	6%	8%	10%	12%	14%	16%
1	0.980	0.962	0.943	0.926	0.909	0.893	0.877	0.862
2	1.942	1.886	1.833	1.783	1.736	1.690	1.647	1.605
3	2.884	2.775	2.673	2.577	2.487	2.402	2.322	2.246
4	3.808	3.630	3.465	3.312	3.170	3.037	2.914	2.798
5	4.713	4.452	4.212	3.993	3.791	3.605	3.433	3.274
6	5.601	5.242	4.917	4.623	4.355	4.111	3.889	3.685
7	6.472	6.002	5.582	5.206	4.868	4.564	4.288	4.039
8	7.325	6.733	6.210	5.747	5.335	4.968	4.639	4.344
9	8.162	7.435	6.802	6.247	5.759	5.328	4.946	4.607
10	8.983	8.111	7.360	6.710	6.145	5.650	5.216	4.833
11	9.787	8.760	7.887	7.139	6.495	5.938	5.453	5.029
12	10.575	9.385	8.384	7.536	6.814	6.194	5.660	5.197
13	11.348	9.986	8.853	7.904	7.103	6.424	5.842	5.342
14	12.106	10.563	9.295	8.244	7.367	6.628	6.002	5.468
15	12.849	11.118	9.712	8.559	7.606	6.811	6.142	5.575

END OF PAPER.